

Appendix 2. Genes in domestic cat *SILVER* interval from conserved syntenic position in the human genome

*VAX1* (96.2 Mb) This gene encodes a homeo-domain containing protein from a class of homeobox transcription factors which are conserved in vertebrates. Genes of this family are involved in the regulation of body development and morphogenesis.

*KCNK18* (also K2p18.1)(96.2 Mb): protein encoded by this gene is a potassium channel containing two pore-forming P domains

*SLC18A2* (96.3 Mb): Solute carrier family 18 - The vesicular monoamine transporter acts to accumulate cytosolic monoamines into synaptic vesicles, using the proton gradient maintained across the synaptic vesicular membrane.

*PDZD8* (96.3 Mb): PDZ domain containing 8

*EMX2* (96.6 Mb): Empty spiracles homologue; The homeodomain transcription factor EMX2 is critical for central nervous system and urogenital development.

*RAB11FIP2* (97.2) *Rab11-FIP2* functions in transferrin recycling and associates with endosomal membranes via its COOH-terminal domain.

*PRLHR* (97.8 Mb): *PRLHR* is a 7-transmembrane domain receptor for prolactin-releasing hormone that is highly expressed in anterior pituitary

*NANOS1*: In *Drosophila*, Nanos genes encode proteins that interact and are required for development of germ stem cells in 1 or both sexes.

*EIF3A* (98.2 Mb): eukaryotic translation initiation factor 3, subunit A

*SFXN4*: (98.2 Mb); sideroflexin4

*PRDX3* (98.3 Mb) Thioredoxin-dependent peroxide reductase: AOP1 interacts with Abrin A-chain (ABRA), which inhibits protein synthesis and can induce apoptosis.

*GRK5* (98.3 Mb) : This gene encodes a member of the guanine nucleotide-binding protein (G protein)-coupled receptor kinase subfamily of the Ser/Thr protein kinase family.

*RGS10* (98.6 Mb): Regulator of G protein signaling (RGS) family members are regulatory molecules that act as GTPase activating proteins (GAPs) for G alpha subunits of heterotrimeric G proteins.

*TIAL1* (98.7 Mb): cytotoxic granule-associated RNA binding protein-like: The protein encoded by this gene is a member of a family of RNA-binding proteins: it regulates various activities including translational control, splicing and apoptosis.

*BAG3* (98.8 Mb): BCL2-associated athanogene 3

*INPP5F* (98.8 Mb:) inositol polyphosphate-5-phosphatase F: The protein encoded by this gene is an inositol 1,4,5-trisphosphate (InsP3) 5-phosphatase and contains a Sac domain.

*SEC23IP* (99.0 Mb), SEC23 interacting protein: COPII-coated vesicles are involved in protein transport from the endoplasmic reticulum to the Golgi apparatus. The protein encoded by this gene was identified by its interaction with a mouse protein similar to yeast Sec23p, an essential component of the COPII.